January 9, 2015

Mr. James Hodges
GSA Safety Environment and Fire Protection Branch
301 7th Street, S.W., Room 2080
Washington, D.C. 20407

**RE: Agricultural Annex (Cotton Annex) (DC0004ZZ)**
***Indoor Air Quality Screening & Paint Chip Sampling – Limited Portions of 1st and 7th Floors***

TTL-Arc Environmental Project Number: 11199.53/038-4

Dear Mr. Hodges:

In accordance with our Industrial Hygiene Services contract with the General Services Administration (GSA), TTL-Arc Environmental, JV LLC (TTL-Arc) performed an airborne fungal particulate screening of limited portions of the 1st and 7th floors of the Agricultural Annex (Cotton Annex) and collected bulk paint chip samples from drywall and plaster components on the 1st floor to determine lead content. The Cotton Annex is located at 300 12th Street, S.W. in Washington, D.C. The Cotton Annex has been reportedly vacant for over eight years; GSA is in the process of relocating tenants to the property where they will have access and use to portions of the 1st and 7th Floors. The sampling was performed on November 21, 2014.

## SECTION 1: Methodology

### Indoor Air Quality Screening

TTL-Arc's Indoor Air Quality (IAQ) specialist, Mr. Stephen Kelly, performed the fungal screening and visual assessment of accessible portions of the 1st and 7th Floors which are anticipated to be utilized by future occupants/tenants. Ambient environmental condition parameters, including temperature and relative humidity, were measured using a TSI IAQ-CALC Indoor Air Quality Meter. During the assessment, a thorough visual inspection was conducted to identify signs of water damage, moisture infiltration, and suspect fungal growth.

Non-viable Air sampling was conducted using an AeroTrap Portable Sampler containing an impaction slide across which air is drawn by an internal calibrated pump at 15 liters per minute for five minutes per sample. Each sample wwas labeled with a unique identification number and were shipped to Aerobiology Laboratory Associates, Inc. (Aerobiology) for analysis via direct visual enumeration and identification by optical microscopy. Aerobiology, located in Dulles, Virginia, prepared slides from the samples and performed counts and identification of mold spores and other particulate via optical microscopy. Aerobiology is accredited in the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP #102977).

### Paint Chip Sampling

TTL-Arc's licensed D.C. Lead Risk Assessor, Mr. Gordy Chapline, collected eight paint chip samples from the plaster and drywall walls on the first floor of the building. The paint chip samples were collected from deteriorated paint that had separated from the substrate. Each sample was placed in an individual plastic sample container and labeled with a unique identifying number.

Collected paint chip samples were then shipped to Schneider Laboratories Global, Inc. (Schneider) for analysis of lead content. Schneider is accredited for lead-in-paint analysis through the American Industrial Hygiene Association's Environmental Lead Laboratory Accreditation Program (ELLAP).

## SECTION 2: Findings & Results

### Indoor Air Quality Screening

The following observations were made during the visual inspection performed on November 21, 2014:

**1st Floor**

- Water stained carpets were observed throughout the offices;
- Visible water staining and discoloration was observed at plaster and wooden window sills throughout the offices;
- Water staining was observed on several ceiling tiles;
- Suspect visible microbial growth was observed on metal supply vent diffusers in several offices; and
- No visible fungal growth was observed on drywall, ceiling tile, or other building materials.

**7th Floor**

- Water stained ceiling tile and carpet within the Food Service Room;
- Water stained and damaged plaster and drywall walls were observed in the Food Service Room;
- Suspect microbial growth was observed on moisture damaged ceiling tiles within the Food Service Room;
- Evidence of a roof leak were observed above the ceiling plenum in the Food Service Room;
- The 7th Floor HVAC Room consisted of concrete construction; evidence of previous leaks were observed, but no visible microbial growth was identified within the room; and
- No evidence of water staining or visible microbial growth was observed in the fresh-air supply unit in the 7th Floor HVAC Room.

Photographs of the areas surveyed are attached in Appendix A.

The results of the ambient environmental condition measurements during the site visit are presented in Table 1, below.

**TABLE 1: Environmental Condition Measurement Data**

| Location | Relative Humidity (%) | Temperature (deg. F) |
|---|---|---|
| Exterior | 18.4 | 40.5 |
| Office 113 | 21.0 | 49.8 |
| Office 110 | 22.0 | 50.3 |
| Office 108 | 20.9 | 50.5 |
| Office 104 | 21.2 | 50.7 |
| Office 107 | 21.4 | 49.7 |
| Office 102 | 22.0 | 49.0 |
| 1st Floor Hallway – South | 21.2 | 49.7 |
| 1st Floor Hallway – Entrance | 22.8 | 49.0 |
| 7th Floor – Food Service Room | 21.9 | 52.3 |

The building was not conditioned at the time of the assessment; the property has been vacant for approximately eight years.

Relative humidity should be maintained at less than 60% with the range of 30%-50% preferred for occupant comfort and prevention of fungal growth (U.S. Environmental Protection Agency); the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) recommends an indoor relative humidity of less than 65% in occupied areas (ASHRAE 62.1-2013). If relative humidity is not controlled, mold growth may be encouraged. Relative humidity within the inspected areas was found to be below the USEPA and ASHRAE recommended upper thresholds for occupant comfort; low, indoor relative humidity during winter months is typical due to lower moisture content of outdoor, supply air.

ASHRAE Standard 55-2013 recommends that indoor that winter (September through May) temperatures range between 68° F and 74° F for occupant comfort. Each of the ambient readings collected from within the inspected areas were below the applicable ASHRAE recommended range for winter months, however, the assessed portions of the building were vacant at the time of sampling.

The results of the air sampling and analysis for total fungal particulate are presented in Table 2 on the following page. The analytical data sheets are attached in Appendix B.

**TABLE 2: Spore Trap Air Sampling Results (spores/m$^3$)**

| Fungal Particle Type | Office 113 | Office 110 | Office 108 | Office 104 | Office 107 | Office 102 | 7th Floor, Food Service | 7th Floor, HVAC Room | Exterior |
|---|---|---|---|---|---|---|---|---|---|
| Alternaria | 13 | 93 | 200 | 67 | 160 | 160 | 67 | 13 | 13 |
| ascospores | 160 | 107 | 213 | 107 | 533 | 267 | 320 | 53 | 13 |
| basidiospores | 1600 | 2667 | 3200 | 1600 | 2133 | 1067 | 907 | 133 | 213 |
| Botrytis | - | - | - | - | 13 | - | - | - | 13 |
| Cercospora | | | 13 | -- | 27 | 80 | 13 | - | 27 |
| Chaetomium | 13 | 67 | 53 | 27 | 93 | 13 | 40 | - | -- |
| Cladosporium | 2347 | 547 | 1067 | 507 | 907 | 1973 | 1333 | 93 | 307 |
| Clear brown | -- | 80 | -- | -- | -- | - | - | - | -- |
| Colorless | -- | -- | 53 | -- | -- | - | - | - | -- |
| Curvularia | -- | 27 | 40 | 27 | 27 | 27 | - | - | -- |
| Drechslera/Bipolaris | 13 | 27 | 67 | 13 | 53 | - | - | - | -- |
| Epicoccum | 40 | 67 | -- | 53 | 67 | 173 | 40 | 27 | -- |
| Helicosporium/Helicomyces | | | | | | 13 | - | - | |
| Hyphal Elements | 133 | 213 | 240 | 293 | 333 | 213 | 147 | 40 | 53 |
| Oidium | 13 | -- | -- | 13 | -- | - | - | - | -- |
| Penicillium/Aspergillus group | 1973 | 2347 | 11947 | 3200 | 6507 | 1600 | 3040 | 413 | 53 |
| Pestalotiopsis | -- | -- | -- | 13 | 13 | - | - | - | -- |
| Pithomyces | -- | 53 | -- | -- | 80 | 67 | 27 | - | -- |
| Polythrincium | -- | 13 | -- | -- | 13 | - | 27 | - | -- |
| Pyricularia | -- | 13 | -- | -- | 13 | - | - | - | -- |
| Rusts | 13 | 13 | 40 | -- | -- | 27 | 13 | - | 13 |
| Smuts,Periconia,Myxomycetes | 240 | 347 | 1387 | 537 | 853 | 1227 | 400 | 53 | 40 |
| Spegazzinia | -- | -- | -- | -- | 13 | - | - | - | -- |
| Torula | -- | -- | -- | -- | 27 | 53 | - | - | -- |
| Unknown | -- | 53 | 40 | 27 | -- | - | - | - | -- |
| **TOTAL FUNGAL COUNTS** | **6560** | **6733** | **18560** | **6520** | **11867** | **6960** | **6373** | **827** | **707** |

Analytical results for non-viable spore trap sampling are provided in Appendix B.

The total measured fungal particulate concentrations for each sampled area within the building were elevated above the outdoor measured concentrations. Indicator species (i.e., Chaetomium), which are identified in indoor air when moisture damaged building materials are present, were identified in seven of the eight collected samples. Elevated concentrations of Penicillium/Aspergillus group were also identified, which can be an indicator of active indoor fungal growth.

### Paint Chip Sampling

The eight collected samples were analyzed by Flame Atomic Absorption Spectrophotometry (FAAS) in accordance with EPA method SW-846 3050B/700B. The results of the analytical analysis are summarized in Table 3, below.

**Table 3: Lead-in-paint Analytical Results**

| Sample Number | Sample Location | Sample Color | Analytical Result % by weight |
|---|---|---|---|
| 01 | First Floor – Hallway – Wall C | Cream / White | 0.0881 |
| 02 | First Floor – Hallway – Wall C | Cream / White | 0.0783 |
| 03 | First Floor – Hallway – Wall A | Cream / White | 0.185 |
| 04 | First Floor – Hallway – Wall A | Cream / White | 0.0961 |
| 05 | First Floor – Hallway – Wall A | Cream / White | 0.103 |
| 06 | First Floor – Room 108 – Wall D | Cream / White | 3.80 |
| 07 | First Floor – Room 108 – Wall D | Cream / White | 0.0213 |
| 08 | First Floor – Room 105 – Wall B | Cream / White | 0.0200 |

Seven of the eight paint chip samples were determined to contain lead in concentrations below the District of Columbia regulatory limit of 0.5% by weight. The white/cream paint on Wall D in Room 108 was reported by the laboratory as containing 3.80% lead, which is above the District of Columbia regulatory limit. The laboratory results are provided in Appendix C.

## SECTION 3: CONCLUSIONS

### Indoor Air Quality Screening

The visual inspection did not reveal evidence of visible water damaged drywall or plaster on the 1st floor of the building. However, suspect discoloration and potential mold growth was observed on plaster/wooden window sills, metal supply diffuser vents, and carpeting throughout the 1st floor. Visible moisture damage was observed on plaster and drywall within the 7th floor Food Service Room; the wall cavity within this area may be impacted by fungal growth. Water stained ceiling tiles and carpeting in this area may also be a source of fugal growth.

Measured relative humidity and temperature ranges within the inspected portions of the building were found to be below recommended EPA and/or ASHRAE standards. Low relative humidity indoors during winter months is typical.

Non-viable spore trap sampling on the 1st and 7th Floors indicated that fungal concentrations within most of the sampled areas were elevated above outdoor concentrations and that mold growth reservoirs are likely present within these areas.

### Paint Chip Sampling

Lead-based paint is present on coated drywall surfaces within the first floor of the building. The painted surfaces throughout the first floor of the Cotton Annex were observed to be in a deteriorated condition.

## SECTION 4: RECOMMENDATIONS

### Indoor Air Quality

Based on the analytical data and field observations, the following recommendations are made:

- Water stained ceiling tiles and carpeting throughout the 1st floor and within the 7th floor Food Service Room should be removed and replaced;
- The metal supply diffuser vents should be cleaned with an anti-microbial solution. A general cleaning of the building's HVAC system may be warranted prior to occupancy; and
- Stained plaster and wooden surfaces around windows on the 1st floor should be cleaned with an anti-microbial solution. Repairs to or restoration of moisture damaged plaster may be necessary.

### Lead-based Paint

While this facility is not regulated under current District Department of the Environment (DDOE) regulations regarding the abatement of lead-based paint, renovation activities that impact the lead paint are regulated under the U.S. Occupational Safety and Health Administration (OSHA) *Lead in Construction* rule (29 CFR 1926.62). Certain renovation activities have the potential to produce hazardous waste if lead-based paint is dry scraped, dry sanded, or heated. Lead Safe Work Practices should be enforced at all times during renovation or demolition activities if these painted surfaces are to be disturbed due to the presence of lead-based paint within the first floor of the building.

TTL-Arc Environmental is pleased to have performed this sampling and analysis for GSA. If you have any questions please call us at (410) 659-9971.

Sincerely,

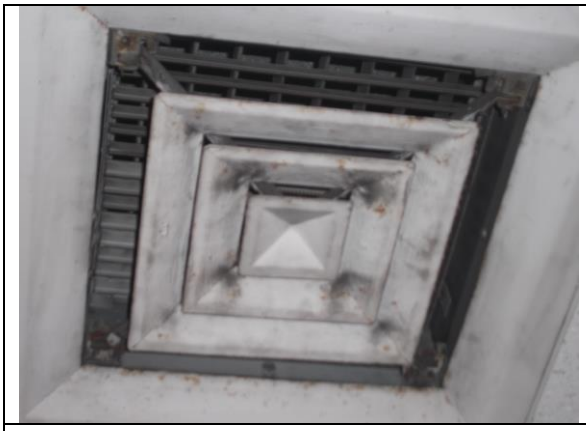
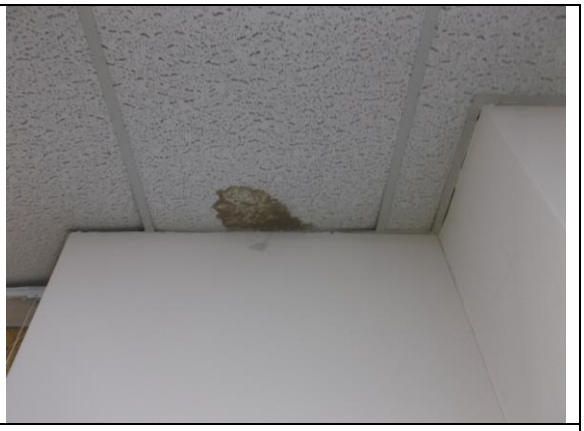
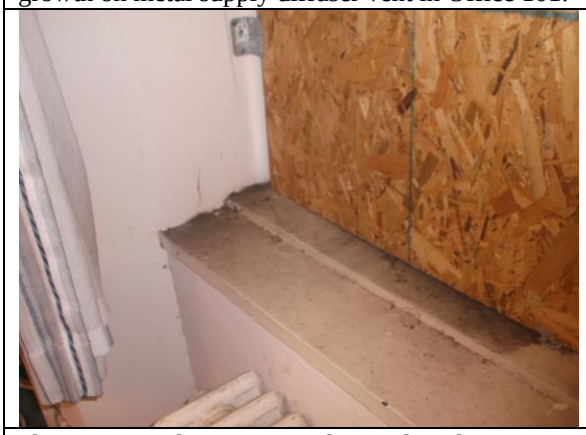
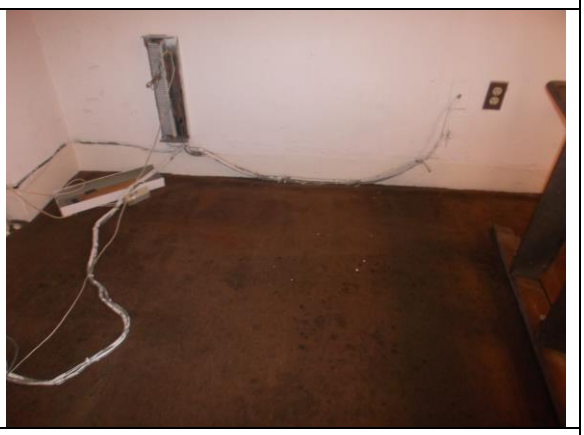
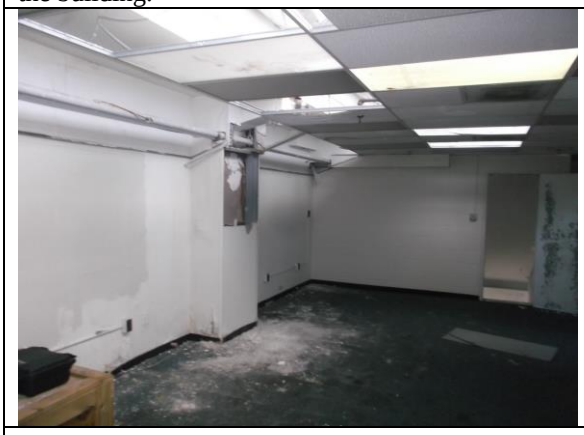
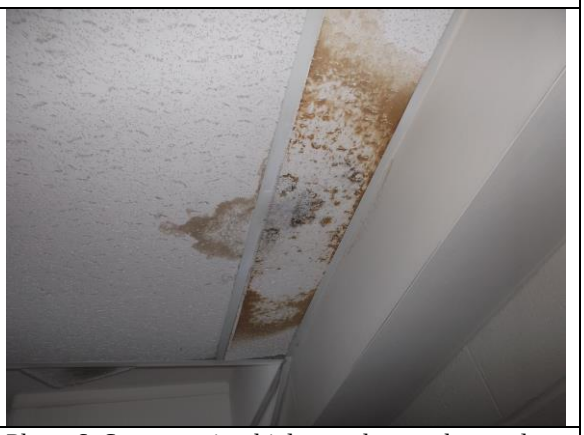
**TTL-Arc Environmental JV, LLC**

Stephen Kelly
IAQ Specialist

Christopher Younger, CIH
Certified Industrial Hygienist

# *Appendix A:*

# *Photographic Log*

| | |
|---|---|
|  |  |
| Photo 1: Discoloration and suspect microbial growth on metal supply diffuser vent in Office 101. | Photo 2: Water stained ceiling tile in Office 102. |
|  |  |
| Photo 3: Discoloration was observed at plaster / wooden window sills throughout the first floor of the building. | Photo 4: Visibly stained carpet was observed throughout the first floor offices. |
|  |  |
| Photo 5: Moisture damaged plaster was observed within the Food Service Room on the 7th Floor. | Photo 6: Suspect microbial growth was observed on a water stained ceiling tile in the Food Service Room. |

# *Appendix B:*

# *Laboratory Analytical Report - Mold*

Aerobiology Laboratory Associates, Incorporated
Expertise Since 1997

43760 Trade Center Place
Suite 100
Sterling, Virginia 20166
(877) 648-9150
www.aerobiology.net

**Certificate of Analysis**
EMLAP# 102977

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


1054 Spore Trap Analysis: SOP 3.8

| Client Sample Number | **112114-300-02** | | | | **112114-300-01** | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Location | **1st Floor-Office 113** | | | | **Exterior** | | | |
| Sample Volume (L) | **75** | | | | **75** | | | |
| Lab Sample Number | **14024663-002** | | | | **14024663-001** | | | |
| **Spore Identification** | Raw Ct | spr/m³ | % Ttl | In/Out | Raw Ct | spr/m³ | % Ttl | In/Out |
| Alternaria | 1 | 13 | <1 | 1/1 | 1 | 13 | 2 | - |
| ascospores | 3 | 160 | 2 | 12/1 | 1 | 13 | 2 | - |
| basidiospores | 30 | 1600 | 24 | 8/1 | 16 | 213 | 30 | - |
| Botrytis | - | - | - | - | - | - | - | - |
| Cercospora | - | - | - | - | - | - | - | - |
| Chaetomium | 1 | 13 | <1 | - | - | - | - | - |
| Cladosporium | 44 | 2347 | 36 | 8/1 | 23 | 307 | 43 | - |
| Clear brown | - | - | - | - | - | - | - | - |
| Colorless | - | - | - | - | - | - | - | - |
| Curvularia | - | - | - | - | - | - | - | - |
| Drechslera/Bipolaris group | 1 | 13 | <1 | - | - | - | - | - |
| Epicoccum | 3 | 40 | 1 | - | - | - | - | - |
| Helicosporium/Helicomyces | - | - | - | - | - | - | - | - |
| hyphal elements | 10 | 133 | 2 | 3/1 | 4 | 53 | 8 | - |
| Oidium | 1 | 13 | <1 | - | - | - | - | - |
| Penicillium/Aspergillus group | 37 | 1973 | 30 | 37/1 | 4 | 53 | 8 | - |
| Pestalotiopsis | - | - | - | - | - | - | - | - |
| Pithomyces | - | - | - | - | - | - | - | - |
| Polythrincium | - | - | - | - | - | - | - | - |
| Pyricularia | - | - | - | - | - | - | - | - |
| Rusts | 1 | 13 | <1 | 1/1 | 1 | 13 | 2 | - |
| Smuts,Periconia,Myxomycetes | 18 | 240 | 4 | 6/1 | 3 | 40 | 6 | - |
| Spegazzinia | - | - | - | - | - | - | - | - |
| Torula | - | - | - | - | - | - | - | - |
| Unknown | - | - | - | - | - | - | - | - |
| | Debris Rating **3** | | | | Debris Rating **3** | | | |
| Analytical Sensitivity | Analytical Sensitivity: **13** spr/m³ | | | | Analytical Sensitivity: **13** spr/m³ | | | |
| Comments | | | | | | | | |
| Total *See Footnotes | 150 | 6560 | ~100% | 9/1 | 53 | 707 | ~100% | - |

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EMLAP# 102977

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Suite 100
Sterling, Virginia 20166
(877) 648-9150
www.aerobiology.net

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


| Client Sample Number | **112114-300-03** | | | | **112114-300-01** | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Location | **1st Floor-Office 110** | | | | **Exterior** | | | |
| Sample Volume (L) | **75** | | | | **75** | | | |
| Lab Sample Number | **14024663-003** | | | | **14024663-001** | | | |
| **Spore Identification** | Raw Ct | spr/m³ | % Ttl | In/Out | Raw Ct | spr/m³ | % Ttl | In/Out |
| Alternaria | 7 | 93 | 1 | 7/1 | 1 | 13 | 2 | - |
| ascospores | 8 | 107 | 2 | 8/1 | 1 | 13 | 2 | - |
| basidiospores | 50 | 2667 | 40 | 13/1 | 16 | 213 | 30 | - |
| Botrytis | - | - | - | - | - | - | - | - |
| Cercospora | - | - | - | - | - | - | - | - |
| Chaetomium | 5 | 67 | 1 | - | - | - | - | - |
| Cladosporium | 41 | 547 | 8 | 2/1 | 23 | 307 | 43 | - |
| Clear brown | 6 | 80 | 1 | - | - | - | - | - |
| Colorless | - | - | - | - | - | - | - | - |
| Curvularia | 2 | 27 | <1 | - | - | - | - | - |
| Drechslera/Bipolaris group | 2 | 27 | <1 | - | - | - | - | - |
| Epicoccum | 5 | 67 | 1 | - | - | - | - | - |
| Helicosporium/Helicomyces | - | - | - | - | - | - | - | - |
| hyphal elements | 16 | 213 | 3 | 4/1 | 4 | 53 | 8 | - |
| Oidium | - | - | - | - | - | - | - | - |
| Penicillium/Aspergillus group | 44 | 2347 | 35 | 44/1 | 4 | 53 | 8 | - |
| Pestalotiopsis | - | - | - | - | - | - | - | - |
| Pithomyces | 4 | 53 | 1 | - | - | - | - | - |
| Polythrincium | 1 | 13 | <1 | - | - | - | - | - |
| Pyricularia | 1 | 13 | <1 | - | - | - | - | - |
| Rusts | 1 | 13 | <1 | 1/1 | 1 | 13 | 2 | - |
| Smuts,Periconia,Myxomycetes | 26 | 347 | 5 | 9/1 | 3 | 40 | 6 | - |
| Spegazzinia | - | - | - | - | - | - | - | - |
| Torula | - | - | - | - | - | - | - | - |
| Unknown | 4 | 53 | 1 | - | - | - | - | - |
| | Debris Rating **3** | | | | Debris Rating **3** | | | |
| Analytical Sensitivity | Analytical Sensitivity: **13** spr/m³ | | | | Analytical Sensitivity: **13** spr/m³ | | | |
| Comments | Large amount of particulate and fibers seen. | | | | | | | |
| Total *See Footnotes | 223 | 6733 | ~100% | 10/1 | 53 | 707 | ~100% | - |

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(877) 648-9150
www.aerobiology.net

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


| Client Sample Number | **112114-300-04** | | | | **112114-300-01** | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Location | **1st Floor-Office 108** | | | | **Exterior** | | | |
| Sample Volume (L) | **75** | | | | **75** | | | |
| Lab Sample Number | **14024663-004** | | | | **14024663-001** | | | |
| **Spore Identification** | Raw Ct | spr/m³ | % Ttl | In/Out | Raw Ct | spr/m³ | % Ttl | In/Out |
| Alternaria | 15 | 200 | 1 | 15/1 | 1 | 13 | 2 | - |
| ascospores | 4 | 213 | 1 | 16/1 | 1 | 13 | 2 | - |
| basidiospores | 60 | 3200 | 17 | 15/1 | 16 | 213 | 30 | - |
| Botrytis | - | - | - | - | - | - | - | - |
| Cercospora | 1 | 13 | <1 | - | - | - | - | - |
| Chaetomium | 4 | 53 | <1 | - | - | - | - | - |
| Cladosporium | 20 | 1067 | 6 | 3/1 | 23 | 307 | 43 | - |
| Clear brown | - | - | - | - | - | - | - | - |
| Colorless | 4 | 53 | <1 | - | - | - | - | - |
| Curvularia | 3 | 40 | <1 | - | - | - | - | - |
| Drechslera/Bipolaris group | 5 | 67 | <1 | - | - | - | - | - |
| Epicoccum | - | - | - | - | - | - | - | - |
| Helicosporium/Helicomyces | - | - | - | - | - | - | - | - |
| hyphal elements | 18 | 240 | 1 | 5/1 | 4 | 53 | 8 | - |
| Oidium | - | - | - | - | - | - | - | - |
| Penicillium/Aspergillus group | 112 | 11947 | 64 | >100/1 | 4 | 53 | 8 | - |
| Pestalotiopsis | - | - | - | - | - | - | - | - |
| Pithomyces | - | - | - | - | - | - | - | - |
| Polythrincium | - | - | - | - | - | - | - | - |
| Pyricularia | - | - | - | - | - | - | - | - |
| Rusts | 3 | 40 | <1 | 3/1 | 1 | 13 | 2 | - |
| Smuts,Periconia,Myxomycetes | 26 | 1387 | 7 | 35/1 | 3 | 40 | 6 | - |
| Spegazzinia | - | - | - | - | - | - | - | - |
| Torula | - | - | - | - | - | - | - | - |
| Unknown | 3 | 40 | <1 | - | - | - | - | - |
| | Debris Rating **3** | | | | Debris Rating **3** | | | |
| Analytical Sensitivity | Analytical Sensitivity: **13** spr/m³ | | | | Analytical Sensitivity: **13** spr/m³ | | | |
| Comments | Large amount of particulate and fibers seen. | | | | | | | |
| Total *See Footnotes | 278 | 18560 | ~100% | 26/1 | 53 | 707 | ~100% | - |

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Expertise Since 1997

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Suite 100
Sterling, Virginia 20166
(877) 648-9150
www.aerobiology.net

**Certificate of Analysis**
EMLAP# 102977

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


| Client Sample Number | **112114-300-05** | | | | **112114-300-01** | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Location | **1st Floor-Office 104** | | | | **Exterior** | | | |
| Sample Volume (L) | **75** | | | | **75** | | | |
| Lab Sample Number | **14024663-005** | | | | **14024663-001** | | | |
| **Spore Identification** | Raw Ct | spr/m³ | % Ttl | In/Out | Raw Ct | spr/m³ | % Ttl | In/Out |
| Alternaria | 5 | 67 | 1 | 5/1 | 1 | 13 | 2 | - |
| ascospores | 8 | 107 | 2 | 8/1 | 1 | 13 | 2 | - |
| basidiospores | 30 | 1600 | 25 | 8/1 | 16 | 213 | 30 | - |
| Botrytis | - | - | - | - | - | - | - | - |
| Cercospora | - | - | - | - | - | - | - | - |
| Chaetomium | 2 | 27 | <1 | - | - | - | - | - |
| Cladosporium | 38 | 507 | 8 | 2/1 | 23 | 307 | 43 | - |
| Clear brown | - | - | - | - | - | - | - | - |
| Colorless | - | - | - | - | - | - | - | - |
| Curvularia | 2 | 27 | <1 | - | - | - | - | - |
| Drechslera/Bipolaris group | 1 | 13 | <1 | - | - | - | - | - |
| Epicoccum | 4 | 53 | 1 | - | - | - | - | - |
| Helicosporium/Helicomyces | - | - | - | - | - | - | - | - |
| hyphal elements | 22 | 293 | 4 | 6/1 | 4 | 53 | 8 | - |
| Oidium | 1 | 13 | <1 | - | - | - | - | - |
| Penicillium/Aspergillus group | 60 | 3200 | 49 | 60/1 | 4 | 53 | 8 | - |
| Pestalotiopsis | 1 | 13 | <1 | - | - | - | - | - |
| Pithomyces | - | - | - | - | - | - | - | - |
| Polythrincium | - | - | - | - | - | - | - | - |
| Pyricularia | - | - | - | - | - | - | - | - |
| Rusts | - | - | - | - | 1 | 13 | 2 | - |
| Smuts,Periconia,Myxomycetes | 43 | 573 | 9 | 14/1 | 3 | 40 | 6 | - |
| Spegazzinia | - | - | - | - | - | - | - | - |
| Torula | - | - | - | - | - | - | - | - |
| Unknown | 2 | 27 | <1 | - | - | - | - | - |
| | Debris Rating **3** | | | | Debris Rating **3** | | | |
| Analytical Sensitivity | Analytical Sensitivity: **13** spr/m³ | | | | Analytical Sensitivity: **13** spr/m³ | | | |
| Comments | Large amount of particulate and fibers seen. | | | | | | | |
| Total *See Footnotes | 219 | 6520 | ~100% | 9/1 | 53 | 707 | ~100% | - |

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**Certificate of Analysis**
EMLAP# 102977

43760 Trade Center Place
Suite 100
Sterling, Virginia 20166
(877) 648-9150
www.aerobiology.net

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


| Client Sample Number | **112114-300-06** | | | | **112114-300-01** | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Location | **1st Floor-Office 107** | | | | **Exterior** | | | |
| Sample Volume (L) | **75** | | | | **75** | | | |
| Lab Sample Number | **14024663-006** | | | | **14024663-001** | | | |
| **Spore Identification** | Raw Ct | spr/m³ | % Ttl | In/Out | Raw Ct | spr/m³ | % Ttl | In/Out |
| Alternaria | 12 | 160 | 1 | 12/1 | 1 | 13 | 2 | - |
| ascospores | 10 | 533 | 4 | 40/1 | 1 | 13 | 2 | - |
| basidiospores | 40 | 2133 | 18 | 10/1 | 16 | 213 | 30 | - |
| Botrytis | 1 | 13 | <1 | - | - | - | - | - |
| Cercospora | 2 | 27 | <1 | - | - | - | - | - |
| Chaetomium | 7 | 93 | 1 | - | - | - | - | - |
| Cladosporium | 17 | 907 | 8 | 3/1 | 23 | 307 | 43 | - |
| Clear brown | - | - | - | - | - | - | - | - |
| Colorless | - | - | - | - | - | - | - | - |
| Curvularia | 2 | 27 | <1 | - | - | - | - | - |
| Drechslera/Bipolaris group | 4 | 53 | <1 | - | - | - | - | - |
| Epicoccum | 5 | 67 | 1 | - | - | - | - | - |
| Helicosporium/Helicomyces | - | - | - | - | - | - | - | - |
| hyphal elements | 25 | 333 | 3 | 6/1 | 4 | 53 | 8 | - |
| Oidium | - | - | - | - | - | - | - | - |
| Penicillium/Aspergillus group | 61 | 6507 | 55 | >100/1 | 4 | 53 | 8 | - |
| Pestalotiopsis | 1 | 13 | <1 | - | - | - | - | - |
| Pithomyces | 6 | 80 | 1 | - | - | - | - | - |
| Polythrincium | 1 | 13 | <1 | - | - | - | - | - |
| Pyricularia | 1 | 13 | <1 | - | - | - | - | - |
| Rusts | - | - | - | - | 1 | 13 | 2 | - |
| Smuts,Periconia,Myxomycetes | 16 | 853 | 7 | 21/1 | 3 | 40 | 6 | - |
| Spegazzinia | 1 | 13 | <1 | - | - | - | - | - |
| Torula | 2 | 27 | <1 | - | - | - | - | - |
| Unknown | - | - | - | - | - | - | - | - |
| | Debris Rating **4** | | | | Debris Rating **3** | | | |
| Analytical Sensitivity | Analytical Sensitivity: **13** spr/m³ | | | | Analytical Sensitivity: **13** spr/m³ | | | |
| Comments | Large amount of particulate seen. | | | | | | | |
| Total *See Footnotes | 214 | 11867 | ~100% | 17/1 | 53 | 707 | ~100% | - |

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www.aerobiology.net

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


| Client Sample Number | **112114-300-07** | | | | **112114-300-01** | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Location | **1st Floor-Office 102** | | | | **Exterior** | | | |
| Sample Volume (L) | **75** | | | | **75** | | | |
| Lab Sample Number | **14024663-007** | | | | **14024663-001** | | | |
| **Spore Identification** | Raw Ct | spr/m³ | % Ttl | In/Out | Raw Ct | spr/m³ | % Ttl | In/Out |
| Alternaria | 12 | 160 | 2 | 12/1 | 1 | 13 | 2 | - |
| ascospores | 5 | 267 | 4 | 20/1 | 1 | 13 | 2 | - |
| basidiospores | 20 | 1067 | 15 | 5/1 | 16 | 213 | 30 | - |
| Botrytis | - | - | - | - | - | - | - | - |
| Cercospora | 6 | 80 | 1 | - | - | - | - | - |
| Chaetomium | 1 | 13 | <1 | - | - | - | - | - |
| Cladosporium | 37 | 1973 | 28 | 6/1 | 23 | 307 | 43 | - |
| Clear brown | - | - | - | - | - | - | - | - |
| Colorless | - | - | - | - | - | - | - | - |
| Curvularia | 2 | 27 | <1 | - | - | - | - | - |
| Drechslera/Bipolaris group | - | - | - | - | - | - | - | - |
| Epicoccum | 13 | 173 | 2 | - | - | - | - | - |
| Helicosporium/Helicomyces | 1 | 13 | <1 | - | - | - | - | - |
| hyphal elements | 16 | 213 | 3 | 4/1 | 4 | 53 | 8 | - |
| Oidium | - | - | - | - | - | - | - | - |
| Penicillium/Aspergillus group | 30 | 1600 | 23 | 30/1 | 4 | 53 | 8 | - |
| Pestalotiopsis | - | - | - | - | - | - | - | - |
| Pithomyces | 5 | 67 | 1 | - | - | - | - | - |
| Polythrincium | - | - | - | - | - | - | - | - |
| Pyricularia | - | - | - | - | - | - | - | - |
| Rusts | 2 | 27 | <1 | 2/1 | 1 | 13 | 2 | - |
| Smuts,Periconia,Myxomycetes | 23 | 1227 | 18 | 31/1 | 3 | 40 | 6 | - |
| Spegazzinia | - | - | - | - | - | - | - | - |
| Torula | 4 | 53 | 1 | - | - | - | - | - |
| Unknown | - | - | - | - | - | - | - | - |
| | Debris Rating **4** | | | | Debris Rating **3** | | | |
| Analytical Sensitivity | Analytical Sensitivity: **13** spr/m³ | | | | Analytical Sensitivity: **13** spr/m³ | | | |
| Comments | Large amount of particulate seen. Few insect parts seen. | | | | | | | |
| Total *See Footnotes | 177 | 6960 | ~100% | 10/1 | 53 | 707 | ~100% | - |

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**Certificate of Analysis**
EMLAP# 102977

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


| Client Sample Number | **112114-300-08** | | | | **112114-300-01** | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Location | **7th Floor-Food Service Room** | | | | **Exterior** | | | |
| Sample Volume (L) | **75** | | | | **75** | | | |
| Lab Sample Number | **14024663-008** | | | | **14024663-001** | | | |
| **Spore Identification** | Raw Ct | spr/m³ | % Ttl | In/Out | Raw Ct | spr/m³ | % Ttl | In/Out |
| Alternaria | 5 | 67 | 1 | 5/1 | 1 | 13 | 2 | - |
| ascospores | 6 | 320 | 5 | 24/1 | 1 | 13 | 2 | - |
| basidiospores | 17 | 907 | 14 | 4/1 | 16 | 213 | 30 | - |
| Botrytis | - | - | - | - | - | - | - | - |
| Cercospora | 1 | 13 | <1 | - | - | - | - | - |
| Chaetomium | 3 | 40 | 1 | - | - | - | - | - |
| Cladosporium | 25 | 1333 | 21 | 4/1 | 23 | 307 | 43 | - |
| Clear brown | - | - | - | - | - | - | - | - |
| Colorless | - | - | - | - | - | - | - | - |
| Curvularia | - | - | - | - | - | - | - | - |
| Drechslera/Bipolaris group | - | - | - | - | - | - | - | - |
| Epicoccum | 3 | 40 | 1 | - | - | - | - | - |
| Helicosporium/Helicomyces | - | - | - | - | - | - | - | - |
| hyphal elements | 11 | 147 | 2 | 3/1 | 4 | 53 | 8 | - |
| Oidium | - | - | - | - | - | - | - | - |
| Penicillium/Aspergillus group | 57 | 3040 | 48 | 57/1 | 4 | 53 | 8 | - |
| Pestalotiopsis | - | - | - | - | - | - | - | - |
| Pithomyces | 2 | 27 | <1 | - | - | - | - | - |
| Polythrincium | 2 | 27 | <1 | - | - | - | - | - |
| Pyricularia | - | - | - | - | - | - | - | - |
| Rusts | 1 | 13 | <1 | 1/1 | 1 | 13 | 2 | - |
| Smuts,Periconia,Myxomycetes | 30 | 400 | 6 | 10/1 | 3 | 40 | 6 | - |
| Spegazzinia | - | - | - | - | - | - | - | - |
| Torula | - | - | - | - | - | - | - | - |
| Unknown | - | - | - | - | - | - | - | - |
| | Debris Rating **4** | | | | Debris Rating **3** | | | |
| Analytical Sensitivity | Analytical Sensitivity: **13** spr/m³ | | | | Analytical Sensitivity: **13** spr/m³ | | | |
| Comments | Large amount of particulate seen. Occasional insect parts seen. | | | | | | | |
| Total *See Footnotes | 163 | 6373 | ~100% | 9/1 | 53 | 707 | ~100% | - |

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**Certificate of Analysis**
EMLAP# 102977

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www.aerobiology.net

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


| Client Sample Number | **112114-300-09** | | | | **112114-300-01** | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Location | **7th Floor-HVAC Room** | | | | **Exterior** | | | |
| Sample Volume (L) | **75** | | | | **75** | | | |
| Lab Sample Number | **14024663-009** | | | | **14024663-001** | | | |
| **Spore Identification** | Raw Ct | spr/m³ | % Ttl | In/Out | Raw Ct | spr/m³ | % Ttl | In/Out |
| Alternaria | 1 | 13 | 2 | 1/1 | 1 | 13 | 2 | - |
| ascospores | 4 | 53 | 6 | 4/1 | 1 | 13 | 2 | - |
| basidiospores | 10 | 133 | 16 | 1/2 | 16 | 213 | 30 | - |
| Botrytis | - | - | - | - | - | - | - | - |
| Cercospora | - | - | - | - | - | - | - | - |
| Chaetomium | - | - | - | - | - | - | - | - |
| Cladosporium | 7 | 93 | 11 | 1/3 | 23 | 307 | 43 | - |
| Clear brown | - | - | - | - | - | - | - | - |
| Colorless | - | - | - | - | - | - | - | - |
| Curvularia | - | - | - | - | - | - | - | - |
| Drechslera/Bipolaris group | - | - | - | - | - | - | - | - |
| Epicoccum | 2 | 27 | 3 | - | - | - | - | - |
| Helicosporium/Helicomyces | - | - | - | - | - | - | - | - |
| hyphal elements | 3 | 40 | 5 | 1/1 | 4 | 53 | 8 | - |
| Oidium | - | - | - | - | - | - | - | - |
| Penicillium/Aspergillus group | 31 | 413 | 50 | 8/1 | 4 | 53 | 8 | - |
| Pestalotiopsis | - | - | - | - | - | - | - | - |
| Pithomyces | - | - | - | - | - | - | - | - |
| Polythrincium | - | - | - | - | - | - | - | - |
| Pyricularia | - | - | - | - | - | - | - | - |
| Rusts | - | - | - | - | 1 | 13 | 2 | - |
| Smuts,Periconia,Myxomycetes | 4 | 53 | 6 | 1/1 | 3 | 40 | 6 | - |
| Spegazzinia | - | - | - | - | - | - | - | - |
| Torula | - | - | - | - | - | - | - | - |
| Unknown | - | - | - | - | - | - | - | - |
| | Debris Rating **3** | | | | Debris Rating **3** | | | |
| Analytical Sensitivity | Analytical Sensitivity: **13** spr/m³ | | | | Analytical Sensitivity: **13** spr/m³ | | | |
| Comments | | | | | | | | |
| Total *See Footnotes | 62 | 827 | ~100% | 1/1 | 53 | 707 | ~100% | - |

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Sterling, Virginia 20166
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**Certificate of Analysis**
EMLAP# 102977

Arc Environmental
1311 Haubert St
Baltimore, Maryland 21230
Attn:
Project: **GSA-300 12th St SW**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 11/21/2014
Date Received: 11/24/2014
Date Analyzed: 11/24/2014
Date Reported: 11/24/2014
Project ID: 14024663


# Footnotes and Additional Report Information

## Debris Rating Table

| | | |
|---|---|---|
| 1 | Minimal (<5%) particular present | Reported values are minimally affected by particulate load. |
| 2 | 5% to 25% of the trace occluded with particulate | Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded. |
| 3 | 26% to 75% of the trace occluded with particulate | Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded. |
| 4 | 75% to 90% of the trace occluded with particulate | Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded. |
| 5 | Greater than 90% of the trace occluded with particulate | Quantification not possible due to large negative bias. A new sample should be collected at a shorter time interval or other measures taken to reduce particulate load. |

1. Penicillium/Aspergillus group spores are characterized by their small size, round to ovoid shape, being unicellular, and usually colorless to lightly pigmented. There are numerous genera of fungi whose spore morphology is similar to that of the Penicillium/Aspergillus type. Two common examples would be Paecilomyces and Acremonium. Although the majority of spores placed in this group are Penicillium, Aspergillus, or a combination of both. Keep in mind that these are not the only two possibilities.

2. Ascospores are sexually produced fungal spores formed within an ascus. An ascus is a sac-like structure designed to discharge the ascospores into the environment, e.g. Ascobolus.

3. Basidiospores are typically blown indoors from outdoors and rarely have an indoor source. However, in certain situations a high basidiospore count indoors may be indicative of a wood decay problem or wet soil.

4. The Smut, Periconia, Myxomycete group is composed of three different groups whose spores have similar morphologies. Smuts are plant pathogens, Periconia is a relatively uncommon mold indoors, and Myxomycetes are not fungi but slime molds. Although these organisms do not typically proliferate indoors, their spores are potentially allergenic.

5. The colorless group contains colorless spores which were unidentifiable to a specific genus. Examples of this group include Acremonium, Aphanocladium, Beauveria, Chrysosporium, Engyodontium microconidia, yeast, some arthrospores, as well as many others.

6. Hyphae are the vegetative mode of fungi. Hyphal elements are fragments of individual Hyphae. They can break apart and become airborne much like spores and are potentially allergenic. A mass of hyphal elements is termed the mycelium. Hyphae in high concentration may be indicative of colonization.

7. Dash (-) in this report, under raw count column means 'not detected (ND)'; otherwise 'not applicable' (NA).

8. The positive-hole correction factor is a statistical tool which calculates a probable count from the raw count, taking into consideration that multiple particles can impact on the same hole; for this reason the sum of the calculated counts may be less than the positive hole corrected total.

9. Due to rounding totals may not equal 100%.

10. Minimum Reporting Limits (MRL) for BULKS, DUSTS, SWABS, and WATER samples are a calculation based on the sample size and the dilution plate on which the organism was counted. Results are a compilation of counts taken from multiple dilutions and multiple medias. This means that every genus of fungi or bacteria recovered can be counted on the plate on which it is best represented.

11. If the final quantitative result is corrected for contamination based on the blank, the blank correction is stated in the sample comments section of the report.

12. Analysis conducted on non-viable spore traps is completed using Indoor Environmental Standards Organization (IESO) Standard 2210.

13. The results in this report are related to this project and these samples only.

14. For samples with an air volume of < 100L, the number of significant figures in the result should be considered (2) two. For samples with air volumes between 100-999L, the number of significant figures in the result should considered (3) three. For example, a sample with a result of 55,443 spr/m3 from a 75L sample using significant figures should be considered 55,000. The same result of 55,443 from a 150L sample using significant figures should be considered 55,400 spr/$m^3$.

15. If the In/Out ratio is greater than 100 times it is indicated >100/1, rather than showing the real value.

**Terminology Used in Direct Exam Reporting**

**Conidiophores are a type of modified hyphae from which spores are born. When seen on a surface sample in moderate to numerous concentrations they may be indicative of fungal growth.**

Suzanne S. Blevins, B.S., SM (ASCP)
Laboratory Director

Aerobiology Laboratory Associates, Incorporated
Expertise Since 1997

14 024663

14024663

Page _____ of _____

CDC's ELITE Program
CO, GA, VA

NVLAP®
NVLAP Lab Code 200860-0
NVLAP Lab Code 200829-0
NVLAP Lab Code 500097-0

AIHA LAP, LLC
LAB #192683 (CO)
LAB #102977 (GA)
LAB #163063 (VA)
LAB #210229 (AZ)

| | | | | | |
|---|---|---|---|---|---|
| Aerobiology Client | Arc Environmental, Inc. | | | | |
| Field Contact | Stephen Kelly | Collected By/Date: SAP 11/21/14 | | Relinquished By/Date: SAP 11/21/14 | |
| Address | 1311 Haubert Street | Relinquished By/Date: | | Received By/Date: SAP 11/24/14 | |
| Address | Baltimore, MD 21230 | Sampler Type | Andersen___ SAS___ | SampleAire___ AeroTrap_X_ | Other___ BioCulture___ |
| Phone/Fax | 410-659-9971 | PO#/Job#/Project Name: GSA - 300 12th St SW | | | |
| Email | skelly@arcenvironmental.com | | | | |
| Routine ○ | 24 Hour ○ Same Day ◉ 4 Hour ○ 2 Hour ○ | 5 Day (Asbestos Only) | Notes/CC Info: | | |
| Zip Code Where Work Is Performed | 20024 | | | | |

| | Sample No. | Test Code | Sample Location | Total Volume/Area |
|---|---|---|---|---|
| 1 | 112114-300-01 | 1054 | Exterior | 75 L |
| 2 | 112114-300-02 | 1054 | 1st Floor - Office 113 | 75 L |
| 3 | 112114-300-03 | 1054 | 1st Floor - Office 110 | 75 L |
| 4 | 112114-300-04 | 1054 | 1st Floor - Office 108 | 75 L |
| 5 | 112114-300-05 | 1054 | 1st Floor - Office 104 | 75 L |
| 6 | 112114-300-06 | 1054 | 1st Floor - Office 107 | 75 L |
| 7 | 112114-300-07 | 1054 | 1st Floor - Office 102 | 75 L |
| 8 | 112114-300-08 | 1054 | 7th Floor - Food Service Room | 75 L |
| 9 | 112114-300-09 | 1054 | 7th Floor - HVAC Room | 75 L |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |

| | | | |
|---|---|---|---|
| 1054 | Direct, Non-viable Spore Trap | 1015 | Culture - WATER Legionella |
| 1051 | Direct, Qualitative- **Swab/Tape** | 1017 | Culture - SWAB Legionella |
| 1050 | Direct, Qualitative- **Bulk** | 1010 | WATER - Potable - E. coli/total coliforms |
| 1005 | AIR Culture - Bacterial Count w/ ID's | 1012 | SWAB - E. coli/total coliforms |
| 1030 | AIR Culture - Fungal Count w/ ID's | 1028 | Sewage Screen (E. coli/Enterococcus/fecal coliforms) |
| 1006 | SWAB Culture - Bacterial Count w/ ID's | 2056 | Heterotrophic Plate Count |
| 1031 | SWAB Culture - Fungal Count w/ ID's | 3001 | ASBESTOS - Point count |
| 1008 | BULK Culture - Bacterial Count w/ ID's | 3002 | ASBESTOS - PLM Analysis |
| 1033 | BULK Culture - Fungal Count w/ ID's | 3003 | ASBESTOS - Particle characterization |
| 1007 | WATER Culture - Bacterial Count w/ID's | 3004 | ASBESTOS - PCM Analysis |

780 Simms Street, Suite 104, Golden, CO 80401 - **(866) 620-9348** Fax (303) 232-0283 - email: denver@aerobiology.net
43760 Trade Center Place, Suite 100, Dulles VA 20166 - **(877) 648-9150** Fax (703) 661-8379 - email: info@aerobiology.net
4501 Circle 75 Parkway, Suite A1190, Atlanta GA 30339 - **(866) 620-9313** Fax (770) 947-2938 - email: ATL@aerobiology.net
2228 West Northern Avenue, Suite B110, Phoenix AZ 85021 - **(855) 738-5619** Fax (602) 441-2818 - email: phoenix@aerobiology.net

# *Appendix C:*

# *Laboratory Analytical Report - Lead*

**Analysis Report**

# Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

**Customer:** Arc Environmental Inc (2791)
**Address:** 1311 Haubert St
Baltimore, MD 21230-5219

**Attn:**

**Project:** GSA-300 12th Street SW
**Location:** 300 12th Street SW
**Number:**

**Order #:** 115266

**Matrix** Paint
**Received** 11/24/14
**Analyzed** 11/24/14
**Reported** 11/24/14

**PO Number:**

| Sample ID / Parameter | Cust. Sample ID | Location / Method | Sample Date | Weight / Total µg | Conc. % by Wt | RL | Conc. |
|---|---|---|---|---|---|---|---|
| **115266-001** | 1 | Hallway Wall C | 11/21/14 | 329 mg | | | |
| Lead | | EPA 7000B / 3050B | | 290 µg | 0.0881 % | 30.4 mg/kg | 881 mg/kg |
| **115266-002** | 2 | Hallway Wall C | 11/21/14 | 327 mg | | | |
| Lead | | EPA 7000B / 3050B | | 256 µg | 0.0783 % | 30.6 mg/kg | 783 mg/kg |
| **115266-003** | 3 | Hallway Wall A | 11/21/14 | 317 mg | | | |
| Lead | | EPA 7000B / 3050B | | 586 µg | 0.185 % | 63.1 mg/kg | 1850 mg/kg |
| **115266-004** | 4 | Hallway Wall A | 11/21/14 | 337 mg | | | |
| Lead | | EPA 7000B / 3050B | | 324 µg | 0.0961 % | 29.7 mg/kg | 961 mg/kg |
| **115266-005** | 5 | Hallway Wall A | 11/21/14 | 322 mg | | | |
| Lead | | EPA 7000B / 3050B | | 331 µg | 0.103 % | 31.1 mg/kg | 1030 mg/kg |
| **115266-006** | 6 | Room 108 Walll D | 11/21/14 | 339 mg | | | |
| Lead | | EPA 7000B / 3050B | | 12900 µg | 3.80 % | 1470 mg/kg | 38000 mg/kg |
| **115266-007** | 7 | Room 108 Walll D | 11/21/14 | 334 mg | | | |
| Lead | | EPA 7000B / 3050B | | 71.1 µg | 0.0213 % | 29.9 mg/kg | 213 mg/kg |
| **115266-008** | 8 | Room 105 Walll B | 11/21/14 | 321 mg | | | |
| Lead | | EPA 7000B / 3050B | | 64.3 µg | 0.0200 % | 31.2 mg/kg | 200 mg/kg |

**Analyst: MHB**
**115266-11/24/14 05:08 PM**

Abisola O Kasali

Reviewed By: **Abisola Kasali**
Metals Supervisor

Minimum reporting limit: 10.0 µg. Lead Based Paint contains 0.5% lead by weight per Federal statute. The OSHA Lead in Construction Standard, 29 CFR 1926.62, is invoked if any lead is present in the sample. Concentration and Reporting Limit (RL) based on weights provided by client. All internal QC parameters were met. Unusual sample conditions, if any, are described. Values are reported to three significant figures. PPM = mg/kg | PPB = µg/kg. The analysis data reported relates only to the samples as submitted.

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# SCHNEIDER LABORATORIES GLOBAL, INC.

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| | | | | | |
|---|---|---|---|---|---|
| Submitting Co. | Arc Environmental, Inc. | Lab WO# | | Phone | 410-659-9971 |
| 1311 Haubert Street | | Acct # | | Fax / Email | skelly@arcenvironmental.com |
| Baltimore, MD 21230 | | State of Collection | Washington, D.C. | QC# Required | ☐ Yes ☐ No |
| Project Name: | GSA - 300 12th Street SW | Special Instructions [include requests for special reporting or data packages] | | | |
| Project Location: | 300 12th Street SW | | | | |
| Project Number: | | | | | |
| PO Number: | | | | | |

**Turn Around Time**

- ☐ 2 hours*
- ☒ Same day*
- ☐ 1 business day*
- ☐ 2 business day*
- ☐ 3 business days*
- ☐ 5 business days*
- ☐ Weekend*

* not available for all tests

*Schedule rush organics, multi-metals & weekend tests in advance.*

**Matrix / Sample Type (Select ONE)**

*All samples on form should be of SAME matrix type. Use additional forms as needed.*

- ☐ Air
- ☐ Aqueous
- ☐ Bulk
- ☐ Hi-Vol Filter (PM10)
- ☐ Hi-Vol Filter (TSP)
- ☐ Oil
- ☒ Paint
- ☐ Sludge
- ☐ Soil
- ☐ Solid
- ☐ Waste
- ☐ Wastewater
- ☐ Water,Drinking
- ☐ Compliance
- ☐ Wipe
- ☐ Wipe, Composite
- ☐ _____
- ☐ _____

**Tests / Analytes (Select ALL that Apply)**

**Asbestos Air / Fiber Counts**
- ☐ PCM (NIOSH 7400)
- ☐ TEM (AHERA)
- ☐ TEM (EPA Level II)

**Miscellaneous Tests**
- ☐ Total Dust (NIOSH 0500)
- ☐ Resp. Dust (NIOSH 0600)
- ☐ Silica - FTIR (NIOSH 7602)
- ☐ Silica - XRD (NIOSH 7500)

**Other**
- ☐ _____

**Asbestos Bulk / Asb ID**
- ☐ PLM (EPA 600/R-93/116)
- ☐ PLM (EPA Point Count)
- ☐ PLM (Qualitative only)
- ☐ NYELAP 198.1/.4/.6
- ☐ CAELAP (EPA Interim)
- ☐ TEM (Chatfield)
- ☐ _____

**FOR ASBESTOS AIR:**

TYPE OF RESPIRATOR USED:

**Metals-Total Conc**
- ☒ Lead
- ☐ RCRA Metals

**Metals-Extract**
- ☐ TCLP / Lead
- ☐ TCLP / RCRA Metals
- ☐ TCLP / Full (w/ organics) 10 day

**Microbiology**
- ☐ BACT (MPN & P/A)
- ☐ Mold Direct Exam
- ☐ _____

| Sample # | Date Sampled | Time Sampled | Sample Identification (Employee, SSN, Bldg, Material, Type[1]) | Wiped Area (ft²) | pH / Temp * | Time[2] Start | Time[2] Stop | Flow Rate[3] Start | Flow Rate[3] Stop | Total[4] Air |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/21/14 | 12:30 PM | Hallway - Wall C | | | | | | | |
| 2 | 11/21/14 | 12:31 PM | Hallway - Wall C | | | | | | | |
| 3 | 11/21/14 | 12:32 PM | Hallway - Wall A | | | | | | | |
| 4 | 11/21/14 | 12:33 PM | Hallway - Wall A | | | | | | | |
| 5 | 11/21/14 | 12:34 PM | Hallway - Wall A | | | | | | | |
| 6 | 11/21/14 | 12:35 PM | Room 108 - Wall D | | | | | | | |
| 7 | 11/21/14 | 12:36 PM | Room 108 - Wall D | | | | | | | |
| 8 | 11/21/14 | 12:37 PM | Room 105 - Wall B | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

[1]Type: A=area B=blank P=personal E=excursion [2]Beginning/End of Sample Period [3]Pump Calibration in Liters/Minute [4]Volume in Liters [time in min * flow in L/min]

**Sampled by**

NAME Gordy Chapline

SIGNATURE

DATE/TIME 11/21/14 1:00PM

**Relinquished to lab by**

NAME Stephen Kelly

SIGNATURE

DATE/TIME 11-21-14 4:00PM

11/24/14

☐ Sample return requested ☐ Ambient temp ☐ Ice CI ☐ R ☐ S ☐ X

☐ Receive a physical copy of report.

**Sample Disposal**
If samples over req. weight (Refer to Fee Schedule)
- ☐ Return to Sender (Shipping fees)
- ☐ Disposal by lab ($50 fee)

**Shipping Methods**
- ☐ FX ☑ UPS ☐ USM
- ☐ HD ☐ DB

WB: 6524

* Temperature taken with IR Gun A. **Required.

Chain-of-Custody documentation continued internally within lab. Terms and conditions page 2.